

## CLAIMS

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1 A method for the diagnosis of a single nucleotide polymorphism in VCAM-1 in a human, which method comprises determining the sequence of the nucleic acid of the human at one or more of positions 278, 647, 707, 748, 829 and 1467 in the VCAM-1 gene as defined by the positions in EMBL ACCESSION NO. M92431, and determining the status of the human by reference to polymorphism in the VCAM-1 gene.

2 A method for diagnosis according to claim 1 in which the single nucleotide polymorphisms are further defined as:

the single nucleotide polymorphism at position 278 is presence of T and/or C;

10 the single nucleotide polymorphism at position 647 is presence of A and/or G;

the single nucleotide polymorphism at position 707 is presence of T and/or C;

the single nucleotide polymorphism at position 748 is presence of T and/or C;

the single nucleotide polymorphism at position 829 is presence of G and/or A; and

the single nucleotide polymorphism at position 1467 is presence of T and/or C.

15 3 A method for diagnosis according to claim 1 or 2 in which the sequence is determined by a method selected from amplification refractory mutation system and restriction fragment length polymorphism.

4 A nucleic acid comprising any one of the following polymorphisms:

the nucleic acid of EMBL ACCESSION No. M92431 with C at position 278 in the promoter

20 sequence as defined by the position in EMBL ACCESSION No. M92431;

the nucleic acid of EMBL ACCESSION No. M92431 with G at position 647 in the promoter sequence as defined by the position in EMBL ACCESSION No. M92431;

the nucleic acid of EMBL ACCESSION No. M92431 with C at position 707 in the promoter sequence as defined by the position in EMBL ACCESSION No. M92431;

25 the nucleic acid of EMBL ACCESSION No. M92431 with C at position 748 in the promoter sequence as defined by the position in EMBL ACCESSION No. M92431;

the nucleic acid of EMBL ACCESSION No. M92431 with A at position 829 in the promoter sequence as defined by the position in EMBL ACCESSION No. M92431;

the nucleic acid of EMBL ACCESSION No. M92431 with C at position 1467 in the promoter

30 sequence as defined by the position in EMBL ACCESSION No. M92431;

or a complementary strand thereof or a fragment thereof of at least 20 bases comprising at least one polymorphism.

5 A computer-readable medium comprising at least one nucleic acid sequence as defined in claim 4 stored on the medium.

6 An allele specific primer capable of detecting a VCAM-1 gene polymorphism at one or more of positions 278, 647, 707, 748, 829 and 1467 in the VCAM-1 gene as defined by the 5 positions in EMBL ACCESSION NO. M92431.

7 An allele-specific oligonucleotide probe capable of detecting a VCAM-1 gene polymorphism at one or more of positions 278, 647, 707, 748, 829 and 1467 in the VCAM-1 gene as defined by the positions in EMBL ACCESSION NO. M92431.

8 Use of a VCAM-1 ligand antagonist drug in preparation of a medicament for treating a 10 VCAM-1 ligand mediated disease in a human diagnosed as having a single nucleotide polymorphism at one or more of positions 278, 647, 707, 748, 829 and 1467 as defined by the position in EMBL accession number M92431.

9 A method of treating a human in need of treatment with a VCAM-1 ligand antagonist drug in which the method comprises:

15 i) diagnosis of a single nucleotide polymorphism in VCAM-1 gene in the human, which diagnosis comprises determining the sequence of the nucleic acid at one or more of positions 278, 647, 707, 748, 829 and 1467 as defined by the position in EMBL accession number M92431, and determining the status of the human by reference to polymorphism in the VCAM-1 gene; and

20 ii) administering an effective amount of a VCAM-1 ligand antagonist.

10 A pharmaceutical pack comprising VCAM-1 ligand antagonist drug and instructions for administration of the drug to humans diagnostically tested for a single nucleotide polymorphism at one or more of positions 278, 647, 707, 748, 829 and 1467 as defined by the position in EMBL accession number M92431.

25 11 Use of a nucleic acid sequence comprising at least one of the polymorphisms in the promoter at one or more of positions 278, 647, 707, 748, 829 and 1467 as defined by the position in EMBL accession number M92431 to identify compounds that modify expression of the VCAM-1 gene.